TEMPE MUNICIPAL COURT

Court Information Technology

STRATEGIC PLAN

Summary Document

March 2003

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INTRODUCTION

This document records the automation and technology history and vision of the Tempe Municipal Court. In addition, the plan provides the Court's technology accomplishments and strategic initiatives for the current fiscal year and for future fiscal years.

This is a dynamic, flexible plan, which was created with the broadest possible input. It is regularly updated using the same participative process.

Summary

The December 1999 Court Information Technology Strategic Plan first outlined the goal of developing an Integrated Criminal Justice System within the City of Tempe. Much progress has made and continues to be made (see Plans 1999-2002) through the involvement of all key partners including the Court, Police, Prosecutor, and Social Services (internal City of Tempe diversion programs).

Currently, the Police Department is working toward improving its overall records system by implementing a new software solution. In the Prosecutor's Office staff has purchased and will soon begin using a case management system following the programming completion of certain interfaces between their system, the police, social services and the Court. Meanwhile, Social Services staff continues to assess their needs in an effort to increase the technical capabilities available to them.

During the past three years the Court has made significant efforts to analyze its automated case management/financial system (details outlined in prior Strategic Plans). Since 1999, the Court has continued to reengineer its system, making significant enhancements in the process, while monitoring progress made on AZTEC. Last year's Strategic Plan noted that the Court would need to make a determination no later than early 2004 whether to pursue the statewide application or rewrite existing software to operate in the UNIX environment. The Court's need to rewrite its software stems from the fact that Hewlett Packard has decided to discontinue support for the HP e3000. Currently, the Court is operating on a HP e3000 server, which can be upgraded to a HP 9000 server. Should the Court upgrade the HP e3000 to a HP 9000 capacity, Hewlett Packard has advised us that they will not provide any support for the upgraded server. Support is only available for newly purchased servers.

After careful consideration and extensive discussion, the Court has decided to migrate from the HP e3000 to the HP 9000 with a UNIX operating system. This is not a project that can be delayed further and moving ahead allows migration to be completed as early as June 2004. The main impetus for this decision is that the Court must have a system that not only meets current needs but also has the flexibility and adaptability to address future challenges including large volume filings. The Court benefits by having the unique ability to customize its system to better

meet its own operating needs and accompanying business processes and thus the Court has greater flexibility than it might if it were on AZTEC.

Fortunately, the Tempe Municipal Court has demonstrated success in utilizing its own system. Tempe has been able to keep pace with legislative changes and other requirements as requested by AOC and Maricopa Superior Court. Additionally, informational monthly transmittals of revenue to the State Treasury are timely and quarterly statistical reports are sent to AOC as required. More importantly, the Court does not have a backlog. Case information is entered on the same day it is received. This becomes more noteworthy when one realizes that the Court maintains one of the lowest staffing levels and has the fourth highest volume of filings when compared to other municipal courts (FY 2002 Databook). This has been accomplished by hiring the right people, providing appropriate training and development opportunities, operating in a manner that results in high staff retention rates, and ensuring that automation works for the court users. Due to fiscal constraints in Tempe, beginning in June 2003, the Court will be operating at 1996 staffing levels (following the loss of two staff positions that were the result of retirement/voluntary leave incentive packages). In this renewed era of doing more with less, a well-planned approach toward automation will be crucial in meeting ever burgeoning operating requirements that will be placed upon this Court in the future.

The AOC and its contractors have undertaken a mammoth project to create a functional statewide system and have shown significant positive progress, however, the current version is unable to meet or exceed this Court's operational needs. Furthermore, a reduction in their contracted programming resources, significant state funding issues, existing installation/maintenance responsibilities for AOC staff, and the potential for high per device costs to offset funding shortfalls, make it unlikely that AZTEC will be an option in the near future. Tempe has always been an eager partner in seeking to improve the AZTEC system, including participation in a time-consuming, resource intensive Gap Analysis, and by offering creative solutions, like the heads-down data entry system that is part of AZTEC's latest version. This participation will continue.

The following sections of this document detail the accomplishments for the past fiscal year as well as strategic initiatives for the current and future fiscal years.

TEMPE MUNICIPAL COURT

MISSION:

To contribute to the quality of life in our community by fairly and impartially administering justice in the most effective, efficient, and professional manner possible.

VISION:

Work together to serve the public.
Treat the public and each other with courtesy and respect.
Be ethical in all that we do.
Communicate honestly and openly.
Be sensitive and caring.
Welcome and value individual differences and diversity.
Reward well-intentioned and well-reasoned risk taking.
Praise and reward fully, discipline sparingly.
Be energetic and hard working.
Make every day in the Court both positive and productive.

AUTOMATION GOALS

- To effectively and efficiently accomplish the court's Mission and Vision.
- To minimize the need for future court staff increases through the effective use of automation.
- To expedite court dockets, procedures, and processes.
- To maximize the public's access to court records.
- To ensure compliance with court judgments and orders.
- To facilitate professional and cost effective management of the court organization.
- To constantly meet and maintain the Minimum Accounting Standards (MAS) and all other directives issued by the Arizona Judicial Branch (Arizona Supreme Court's Administrative Office of the Courts or Maricopa County Superior Court).
- To help create a local Integrated Criminal Justice System (ICJS) including the Court, Prosecutor's Office, Police, and Social Services (Diversion).
- To interface seamlessly with other government and outside agencies.
- To provide required data and electronic transfers to Supreme Court and Superior Court on a timely basis.

FY 2002 ACCOMPLISHMENTS

- Integrated Criminal Justice System (ICJS). Criminal Justice Users (Court, Police, Prosecutor's Office, and Social Services) continue to develop automated systems while being ever mindful of connectivity and interface concerns. The Police are improving their Records Management System by purchasing a new software product. The Prosecutor's Office has purchased a Case Management System that will interface with other criminal justice agencies. Social Services is evaluating their automation needs with specific consideration for improving their financial application. IN PROCESS
- Programmed a fully functional interface for multiple collection agencies to transmit and receive current and updated information as fines and fees are submitted for collection and paid. The first full year of operation (February 2002 to February 2003) resulted in $1,880,112.15 in collections. COMPLETED.
- Programmed Financial Management System to calculate $5.00 Probation Fee and Surcharge increase of 80 percent as mandated by the Arizona State Legislature. Legislation effective date: August 22, 2003. COMPLETED.
- Designed form using Fantasia and programmed system to automatically generate Parent Notification Letter (in English or Spanish) when a juvenile defendant has an arraignment in either the Civil or Criminal Divisions. COMPLETED.
- Programmed DUI case aging report as requested by Superior Court. First data transmission occurred Sept 2002. COMPLETED.
- Created a new module in the court database application to automate the issuance of Orders of Protection and Harassment Injunction Orders and transmission of that information to the Supreme Court's Domestic Violence Repository. First transmission occurred September 2003. COMPLETED.
- Obtained Juror for Windows software and bar code equipment to more effectively access juror pool information and produce juror summons via an interface with Superior Court. Tempe was the first municipal court to develop this interface. COMPLETED.

FY 2003 COMPLETED OR IN PROCESS

- Integrated Criminal Justice System (ICJS) – Conduct further evaluation of the integration of the court, police, prosecutor and social services for increased enhancements. IN PROCESS.
- Hardware – Re-evaluated the current court server to ensure optimal reliability, speed of programs and ability to add new users. Refresh of personal computers, and 17" flat panels expected to occur in April 2003.
- Printer purchases. Evaluated current printers for possible replacement or upgrades. Purchased and installed printer/envelope feeder for large print jobs (i.e. daily default letters). Also, purchased a LaserJet HP 4200n to print financial orders/payments. COMPLETED.
- MVD Vehicle Information Improvement Project. The Court has made modifications to its system as the result of program changes made by MVD in an effort to reduce rejection rates and automate its court abstract process. The Court has completed all necessary programming according to MVD specifications and is awaiting file layouts for further testing. MVD to send April 8, 2003. IN PROCESS.
- Programmed and converted all screens in TCJIS to Reflections thereby eliminating one software system. Migration to occur by close of FY 2003. COMPLETED.
- Data Correction Program – Programs give Court supervisors the ability to correct certain data entry issues that previously could have only been addressed by ITD personnel. Programs focus on issues most commonly found in the Case Management and Clerical Accounting applications. These include such issues as: parking violator function; juvenile flag control; warrant notice control; photo enforcement re-transmission; and bond reinstatements. COMPLETED AND ONGOING.
- Electronic Disposition Reporting. The Court received grant funds from AOC for reimbursement of MQ Client that will allow for the electronic reporting of criminal case dispositions to the Department of Public Safety, thereby improving the timeliness and integrity of criminal history information. All booking information will be received from local law enforcement electronically before the Court enters disposition information. IN PROCESS WITH COMPLETION DATE OF JUNE 30, 2003.
- Interactive Voice Response (IVR). Implement an IVR system to allow court users to make case payments by telephone as well as receive information regarding the most frequently asked court-related questions such as case status information, case schedules, hearing notification and juror information. This will reduce the number of transactions handled by court staff and increase revenues. Vendor, Frank Solutions, selected with Council approving contract on February 27, 2003. IN PROCESS WITH COMPLETION DATE OF JUNE 30, 2003.
- Digital Court Recording. Acquire and install a digital courtroom recording system to allow for audio recording of court proceedings via computerized (PC) digital voice recording. This system will retrieve recordings for cases on appeal, public copy request, and allow judges to record case notes digitally with playback at any time or location. Vendor selected March 2003 following RFP process. Council to award contract at May 2003 meeting. IN PROCESS.

- Phases II and III of the Domestic Violence Repository include the addition of a non-disclosure flag for victims and the electronic generation of Order of Protection and Injunction Against Harassment forms that can be completed by the public using "touch screen" technology. IN PROCESS.
- Auto Default Exception Report. The Court's default process is automated, but it would be beneficial to identify all cases where a defendant is on active military duty so that periodic NLT dates can be generated within the system. This process is consistent with the Soldiers and Sailors Relief Act. IN PROCESS.
- Court Case Management System - Continue to upgrade and enhance the existing court case management system including additional programming as identified through need assessment. The Court performed 21 significant updates to enhance customer service, productivity, and quality control. COMPLETED AND ON-GOING.
- Computer-Based Training Module (CBT). Module will provide incoming staff (permanent hires, business interns, etc.) with interactive training that is completed according to the individuals pace and preferences. The training protocol includes a description of the Court's team-based concepts as well as an overview of civil and criminal case processing. This module will be formatted to a CD-ROM. Future applications of this project may include electronic dissemination to the public via the Internet in order to assist in addressing civil/criminal complaints. IN PROCESS WITH COMPLETION DATE OF JUNE 30, 2003.

FY 2004 AND BEYOND

- Integrated Criminal Justice System (ICJS) – Conduct further evaluation of the integration of the court, police, prosecutor and social services for increased enhancements.
- Migration from HP e3000 to HP 9000 and rewriting of Court's application to run on UNIX platform. This project will be completed as early as June 2004 (a detailed document of the proposed migration is attached).
- Calendaring System and Display Monitors. A Request for Proposals in under development to provide software to extract information from the Court's database and then display all court proceedings on monitors. Upon completion of the Single Point of Entry (lobby addition) in October 2003, monitors will display case information that will aid the court user in locating the courtroom where his/her matter is scheduled. This automation effort will decrease valuable staff time now spent in preparing manual calendars.
- Jury Assembly/Training Room. The Court anticipates adding a courtroom and jury assembly room that will also function as a training room on the third floor of the building. After the remodel occurs, audio visual materials, computers, etc. will be purchased to augment training programs.
- Automation of plea agreements.
- Internet Access – Continue design and programming to enhance and improve court users on-line Internet access to court docket information, including providing the ability to schedule certain hearings, file motions (e-filing), and pay sanctions and fines.
- Enhance the warrant process to allow categorizing warrants by police beat with on-line display of daily warrant information.
- Automate witness subpoena process, which will reduce clerical and prosecutor time in the tracking of witness and victim information.
- Automate monthly generation of financial service statistics.
- Fingerprint scanners for criminal division courtrooms.
- Civil traffic arraignments via the Internet.
- Electronic transmission of appeals to Superior Court.
- Electronic compilation and transmission of Supreme Court monthly statistics.
- Electronic data transmission for interfacing with the Federal tax intercept/Debt Set-off program.
- Automate electronic filing of court documents.
- Video Conferencing – Develop connection to the Tempe jail to conduct Initial Appearances, Arraignments and all other proceedings authorized by court rule.
- Provide video capabilities for criminal appearance by remote witnesses through interactive video via the Internet.

APPENDIX

CURRENT ENVIRONMENT:

Hardware Environment

- HP e3000 Server
- HP NT Server
- All desktop PC's are HP PIII

Other Equipment

- Fujitsu 3093 Scanners
- Via Video conferencing equipment

Software Environment

- Judicial System (Internal Case Management Application)
- TCJIS (Tempe Criminal Justice System)
- Altris EB
- PeopleSoft HMRS
- Tab Quick
- Windows 98
- Outlook
- Seagate Info/Crystal Reports
- Microsoft Office Suite
- Michie
- Expedite for Windows
- Reflections
- HART
- Juror for Windows
- SPSS 11.0

HP3000 to HP9000 Migration

Introduction

This document is meant to do the following:

- Provide a summary of the work needed to migrate to GUI screens
- Provide a summary of the work needed to migrate from the HP e3000 to the HP 9000

The Tempe Court is in a good position, as only one main application needs to be migrated. Most of the environment is relatively simple, with only minor dependence on third party technologies. Initial research shows the path of migrating to AcuCOBOL prior to migrating off the HP e3000 platform is not only the most optimal, but will ultimately yield several key benefits. This protocol will provide the Court with GUI technology sooner, limit migration costs, facilitate the clear definition of milestones, and keep the project manageable. Most of the migration process can be automated by a variety of migration tools. The most time-consuming aspect of this project will be in testing the applications and re-creating minor components of the environment for which automated migration paths do not exist.

These findings are based on 60 users, 571 COBOL programs, and 620,487 lines of code.

Terms

Rehost - Is taking existing HP e3000 applications and moving it to the target platforms. This entails using various emulator tools that give users the appearance that nothing is different. This allows the Court to leave source code alone. When a call is made to a database or screen that does not run in the new environment, that call is intercepted and translated into something that is valid in the new world

Rewrite - which is similar to the above option, but instead of porting source code to a new platform, development must start from scratch, using current source as a guide only. This option allows further customization (i.e. GUI screens, and other enhancements) that the new environment may offer.

Emulation (Image & Vplus) – "Tricks" the application into operating in a certain environment when in actuality it is not. In other words an Image emulator (running on a HP 9000) would fool the COBOL programs into operating as though they were using an Image database instead of an Oracle database. This allows the system to maintain all legacy (Image) database calls.

Vendors Considered/Contacted

Microfocus Cobol – Will not run on the HP e3000 which would force the Court to migrate to the HP 9000 directly. This product cannot handle screen conversion.

Fujitsu's *NetCobol* – Will not run on HP3000. There would be significant costs to migrate directly to an HP 9000, including $65,000 for the tools. The developer kits cost $3,000 per seat. If Fujitsu does the migration it would cost $250,000 to $350,000.

Denkart – Provides the tools for MPE emulation.

Ordat - Provides the tools for database emulation

*AcuCobol – Will run on both the HP e3000 and the HP 9000. This development tool contains both a COBOL coding environment and a screen development tool (Acubench).

*ScreenJet – Provides the necessary tools to migrate vplus screens to Acubench.

*Neartek – Provides MPE and Oracle emulation

*Speedware's *Dbmotion* – Designed specifically to help HP3000 customers migrate their Image databases to Oracle. Dbmotion automates most of the conversion process. It will handle Omnidex, and is easy to use and affordable. Speedware will also provide a detailed migration evaluation.

*Preferred or potential options.

GUI Implementation

Phase I – Proof of Concept

Step I

	Start	End	
1.	02/03/2003	– 02/17/2003	Have Screenjet convert the 14 data entry screens
2.	02/17/2003		Receive Demo copy of AcuCOBOL
3.	02/17/2003	– 03/17/2003	Convert/Migrate all 14 data entry screens to AcuCOBOL.

Phase II – GUI Screen Conversion

Step II	Start	End
Migrate Case Management System	03/17/2003	– 06/01/2003
Step III		
Migrate Financial System	06/01/2003	– 07/01/2003

HP9000 Migration

Phase III – Test Image to Oracle Conversion

1. Migrate entire Image database to Oracle database using COCO (test box).
2. Migrate data entry application to COCO.
3. Run benchmarks for online and batch processing.

Phase IV – Migration off of the HP3000

1. Purchase hardware [Networking will contribute $40,000]
2. Options
   - ❖ Test Box
   - ❖ Production Box
   - ❖ Loaner Program: Hewlett-Packard will lend customers (upon providing a written migration plan) an HP9000 machine of any configuration necessary for a period of up to six month, free of charge. At the end of the six-month period, the customer may choose to either return the machine, or purchase it at 40% off HP's list price.
   - ❖ HP offers 90 hours of free, web-based training
3. Migrate AcuCOBOL application to HP9000
4. Migrate all KSAM files to Image Tables
5. Migrate Image database to Oracle using DBMotion
6. Migrate 100 Jobstreams, MPE command, UDC's
   - ➢ Job streams, MPE commands, UDCs, UDCFs, and many MPE intrinsics are all emulated as part of the MPE emulation package. No need to migrate or alter this code.
7. Migrate 300 Fantasia forms to Adobe's *Accelio* (or other forms generator to be determined)

- Currently, there is no known easy migration path from Fantasia to a similar product. Fantasia was sold to Adobe. The recommended product to transition from Fantasia is a product known as Accelio from Adobe. As of today, all forms would need to be recreated.

8. Migrate Omnidex layer to Omni-Access
   - Omnidex is currently a critical component to the application and therefore needs to be brought forward to the new system. DISC has a product known as Omni-Access that is the equivalent of Omnidex, but for relational databases, like Oracle. Because The City of Tempe is a supported customer of DISC's, it is eligible for special pricing.
   - The compatibility libraries of Omni-Access should make the migration from Omnidex to Omni-Access relatively straightforward within the application.
   - The DBmotion product is the only product on the market today that is able to replicate an installation of Omnidex / Image to Omni-Access / Oracle, thereby making it an obvious choice as a database migration tool.
9. Migrate Crystal Reports.
   - City of Tempe already owns the Crystal product and currently uses ODBC drivers from DISC to gain access to the Image databases. Tests will need to be done to ensure that these reports still work correctly against Omni-Access and Oracle.
10. Migrate Supertool
    - Suprtool is available on the HP-UX platform and accesses Oracle as a database. Therefore, the migration process should be relatively straightforward. Speedware can provide detailed pricing for this component as part of a full assessment.
11. Migrate flat files to another format (to be determined)
12. Migrate Vista
    - The Vista Plus product from Quest is available on the HP-UX platform and offers the same functionality. Speedware can provide detailed pricing for this component as part of a full assessment.
13. Migrate JT Mail to another e-mail provider (to be determined)
    - There exists multiple ways of integrating e-mail functionality into an application on the HP-UX platform. It is not recommended that The City of Tempe acquire any special software to do this, but rather that it use what is available in the operating system.
14. Migrate Supertool
    - Suprtool is available on the HP-UX platform and accesses Oracle as a database. Therefore, the migration process should be relatively straightforward. Speedware can provide detailed pricing for this component as part of a full assessment.

Performance Enhancements

Phase V – Reengineer Oracle database

1. Tune Oracle database
2. Migrate to native mode HP-UX
3. Migrate to native mode Oracle

Phase VI – Reengineer Application

1. Reengineering certain screens to take advantage of GUI capabilities
2. Migration off of HP e3000

1. Emulation Mode
   - Operating system.
     - MPE intrinsics
     - Job Control Language (JCL)
     - No performance issues
   - Database
     - Very little performance difference with transaction processing (add, change, delete)
     - Batch processing (or anything that does serial reads of the database) will be slower
       - Worse case: what takes 2 minutes now could take 20 hours in emulation mode
       - Best case: what takes 2 minutes now could take 5 minutes
     - Migration to native mode will be determined by performance.